

INTERNATIONAL SEARCH REPORT

International application No.
PCT/FI 2004/000214

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: E21B 47/00, E21B 44/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: E21B, G01V, G09F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5202680 A (G.M. SAVAGE), 13 April 1993 (13.04.1993), whole document --	1-12
A	WO 0169041 A1 (SANDVIK TAMROCK OY), 20 Sept 2001 (20.09.2001) --	1-12
A	WO 0225319 A2 (WEATHERFORD/LAMB, INC.), 28 March 2002 (28.03.2002) --	1-12
A	EP 0367495 A2 (AMOCO CORPORATION), 9 May 1990 (09.05.1990) -- -----	1-12

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

29 July 2004

Date of mailing of the international search report

02-08-2004

Name and mailing address of the ISA/
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. + 46 8 666 02 86

Authorized officer

Christer Bäcknert / MRO
Telephone No. + 46 8 782 25 00

INTERNATIONAL SEARCH REPORT

Information on patent family members

30/04/2004

International application No.
PCT/FI 2004/000214

US	5202680	A	13/04/1993	NONE	
WO	0169041	A1	20/09/2001	AU	4659901 A 24/09/2001
				CA	2403124 A 20/09/2001
				EP	1266124 A 18/12/2002
				FI	110806 B 00/00/0000
				FI	20000628 A 18/09/2001
				JP	2003527514 T 16/09/2003
				US	6616244 B 09/09/2003
				US	2003052529 A 20/03/2003
				ZA	200207057 A 02/05/2003
WO	0225319	A2	28/03/2002	AU	8786601 A 02/04/2002
				CA	2423586 A 28/03/2002
				EP	1319297 A 18/06/2003
				NO	20030338 A 14/05/2003
EP	0367495	A2	09/05/1990	CA	1315191 A,C 30/03/1993
				DE	68915116 D,T 18/08/1994
				EG	18740 A 30/12/1993
				US	5134271 A 28/07/1992